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T-979 P.01/04 F-593

Exhibit 1

Cisco Systems, Inc.
170 W. Tasman Drive
San Jose, CA 95135

Patent Case Assignment

CISCO SYSTEMS

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PREPARED BY: GUY ELLIS

Date Sent: Redacted

Number of Pages (including coversheet): 4

(370)

PLEASE DELIVER THE FOLLOWING PAGES TO:

Name Thomas Brennan

Fax No. 612-339-3061

Phone No. 612-339-0331

Attached please find a new Cisco invention disclosure. It is our No. 3779 (CPOL #102628) and is entitled, "Use of iScsi Target Acquired Names with World Wide Names encoded in them.." Also attached is contact information for the inventors. Please keep us apprised regarding the status of this application. This application should be filed approximately three months from this date.

Please let us know if you have any problems meeting this goal. Thank you.

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From:

T-878 P.02/04 F-593

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This report contains the following 1 ideas:

Idea No.	Title	Inventors	Entered	Updated	Desig Rev
102628	Use of iScsi Target Acquired Names with World Wide Names encoded in them.	Roger Woodruff (rowoodru)	Redacted		
	Report generated.	Redacted			

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#102628: Use of iScsi Target Acquired Names with World Wide Names encoded in them.

Exhibit 1

Status Info

Entered: Redacted
Modified:

Serial #: ---
File Date: ---

U.S. Pat #: ---
Issue Date: ---
View patent: Not available

Current Inventors:

Roger Woodruff (rowoodru)

History:

Submitted on Redacted Approved by bobg on Redacted . Requires Attorney Assignment.

Full Details

Inventors

(As submitted)

Roger Woodruff (rowoodru) Work Phone: 763 398-1078 Manager: davmyers
Department: SRBU Software Engn Division: ELB SRBU
Site: MINNEAPOLIS

Background

When two SN5420 nodes are connected using the iScsi protocol, and one is acting as a server with attached Fibre Channel devices, and the other is acting as a client with attached Fibre Channel hosts (or if both are in the same node) it takes human intervention to allow the client node to present Fibre Channel targets with the same World Wide Names as the devices attached to the server.

Summary

1. The server SN5420 discovers all Fibre Channel devices attached to it.
 2. The server extracts their World Wide Names and encodes them into the iScsi Target Acquired Name.
- For example, if the World Wide Port Name for a Fibre Channel device

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is discovered to be 0x2200000001020304, the encoding to the ASCII iScsi Target Acquired Name might be "disk/WWPN/22:00:00:00:01:02:03:04".

3. When a client logs into the server using the iScsi protocol, and in return the server sends back a list of supported targets, then the encode World Wide Name will be in the Target Acquired Name.
4. The client can then use the decoded World Wide Name to present a target to hosts attached to it with the same World Wide Name.
5. The encoded value need not be a World Wide Name, for other types of interfaces, such as Scsi Parallel, we can encode the target ID, and logical unit number.

Exhibit 1

Advantages

This allows the client to self-configure in the sense that it can accurately present itself as a target for a remote device without a human having to enter a configuration parameter. And, should the devices change, the image present will change automatically.

Cisco use

It is now being programmed into the SN5420 client software. It provides the product with an option to almost configure itself.

Method of detecting use by other companies

Unless a secondary discovery method is used, any product using the iScsi protocol, and acting as a client, and presenting devices to hosts, and having a feature that automatically duplicates the identity of the servers "real" devices is probably using this technique.

Previous public use

I doubt it since I believe we have the first Fibre Channel to Fibre Channel connection using iScsi and the protocol.

First written record date

First written record URLs

Supporting docs URLs

Notes

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Review Information

Progress

Review Group	Reviewer Users	Status
ELOB	bobg, bshowalt, dsell, mcieslak, otooole, rplatt, rtbell, sdodd, shaffers, wakerly, wjenning	Reviewed

This idea has been approved. Please see the Status Info above for its current status.

Comments

User ID: bobg

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REASON FOR APPROVAL:

This is a novel and elegant application of name resolution and distribution within the domain of Fibre Channel.

OTHER NON-CISCO USERS OF THIS INVENTION:

Any of the major players in SAN.

DETECTION OF NON-CISCO USE:

By reading product documentation and monitoring Fibre Channel links.

Admin Information & controls

Mgr Lookup: chambers, jrichard, incree, mschrand

Desig Rev: ---

FileMaker rec ID: 36573

Pat App 1.0: ---

Any Seq: ---

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and is available on-line from CPOL at [http://wwwin-](http://wwwin-eng.cisco.com/protected-cgi-bin/cpol/patent.cgi?task=PatDetails&patent=)

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